

**Notice of Allowability**

Application No.

09/603,832

Examiner

Rita Mitra

Applicant(s)

KONDEJEWSKI ET AL.

Art Unit

1653

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 8/5/2004.
2. ☒ The allowed claim(s) is/are 21-24, 26-33 and 35-52.
3. ☒ The drawings filed on 26 June 2000 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All   b) ☐ Some\*   c) ☐ None   of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date 26 Dec 2000
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_.

## **DETAILED ACTION**

### ***Status of the Claims***

Applicants' amendment and response to office action dated May 6, 2004, filed on August 5, 2004 is acknowledged. Claims 25 and 34 have been canceled. New claims 39-52 have been added. Therefore, claims 21-24, 26-33 and 35-52 are currently pending and are under examination.

### ***Response to Remarks and Arguments***

The rejection of claims 21-24 and 30-33 under **35 U.S.C. 102 (e)** over Cooper et al., is withdrawn in view of response and remarks on pages 7-10.

The rejection of claims 21, 26, 28, 30, 35 and 37 under **35 U.S.C. 102 (e)** over Fishleigh et al., is withdrawn in view of response and remarks on page 10.

The rejection of claims 21, 26, 28, 30, 35 and 37 under **35 U.S.C. 102(b)** over Prusiner et al. is withdrawn in view of response and remarks on page 10-11.

An **Examiner's Amendment** to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

### ***Examiner's Amendments to the Specification***

An abstract has been inserted which reads as:

### **ABSTRACT**

The invention relates to the use of constrained coiled-coil polypeptides to mimic

$\alpha$ -helical structural elements of native proteins. These constrained peptidyl mimetics are used to generate and/or identify ligands, which selectively bind the  $\alpha$ -helical segment contained in the native protein.

***Examiner's Amendments to the Claims***

Claims 30 and 46 have been amended as below:

30. (Amended) A coiled-coil polypeptide, comprising an amino acid sequence represented by  $(ab_i c_i de_i f_i g_i)_n$ , where

$i=1, 2, \dots, n$ , and  $n$  is at least three;

$a$  and  $d$  are amino acids each independently selected from the group consisting of leucine, isoleucine, valine, phenylalanine, methionine, tyrosine and derivatives thereof;

$(b_i c_i e_i f_i g_i)_n$  is a sequence of amino acids from a solvent-accessible region of an epitope from a selected natural protein, wherein said region is not in a coiled-coil conformation in its native state, and the sequence  $(b_i c_i e_i f_i g_i)_n$  is interrupted by the amino acids in the  $a$  and  $d$  positions in  $(ab_i c_i de_i f_i g_i)_n$ ; and

wherein  $(ab_i c_i de_i f_i g_i)_n$  forms a coiled coil.

46. (Amended) A coiled-coil polypeptide, comprising an amino acid sequence represented by  $(ab_i c_i de_i f_i g_i)_n$ , where

$i=1, 2, \dots, n$ , and  $n$  is between about 5 and about 10;

$a$  and  $d$  are amino acids each independently selected from the group consisting of leucine, isoleucine, valine, phenylalanine, methionine, tyrosine and derivatives thereof;

$(b_i c_i e_i f_i g_i)_n$  is a sequence of amino acids from a solvent-accessible region of an epitope from a selected natural protein, wherein

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said region is not in a coiled-coil conformation in its native state, and the sequence  $(b_i c_i e_i f_i g_i)_n$  is interrupted by the amino acids in the  $a$  and  $d$  positions in  $(ab_i c_i de_i f_i g_i)_n$ ; and  
wherein  $(ab_i c_i de_i f_i g_i)_n$  forms a coiled coil.

Authorization for this examiner's amendment was given in a telephone interview with Attorney Ping Hwung on October 29, 2004.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

#### ***Reasons for Allowance***

The following is an examiner's statement of reasons for allowance:

The prior art of record does not teach or suggest a coiled-coil polypeptide, comprising an amino acid sequence represented by  $(ab_i c_i de_i f_i g_i)_n$ , where  $i=1, 2, \dots, n$ , and  $n$  is at least three;  
 $a$  and  $d$  are amino acids each independently selected from the group consisting of leucine, isoleucine, valine, phenylalanine, methionine, tyrosine and derivatives thereof;  
 $(b_i c_i e_i f_i g_i)_n$  is a sequence of amino acids from a solvent-accessible region of an epitope from a selected natural protein having amino acid sequence selected from the group consisting of SEQ ID NO: 5, SEQ ID NO: 6 and SEQ ID NO: 7, wherein said region is not in a coiled-coil conformation in its native state, and the sequence  $(b_i c_i e_i f_i g_i)_n$  is interrupted by the amino acids in the  $a$  and  $d$  positions in  $(ab_i c_i de_i f_i g_i)_n$ ; and  
wherein  $(ab_i c_i de_i f_i g_i)_n$  forms a coiled coil.

Therefore the claims are allowable over the prior art of record.

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Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Conclusion***

Claims 21-24, 26-33 and 35-52 are allowed.

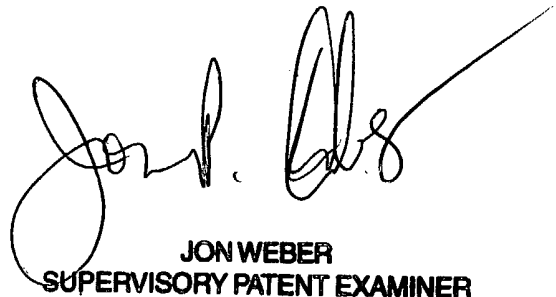
***Inquiries***

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Rita Mitra whose telephone number is (571) 272-0954. The Examiner can normally be reached from 9:30 a.m. to 6:30 p.m. on weekdays. If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Dr. Jon Weber, can be reached at (571) 272-0925. Papers related to this application may be submitted to Technology Center 1600 by facsimile transmission. Papers should be faxed to Technology Center 1600 via the PTO Fax Center. The faxing of such papers must conform with the notice published in the Official Gazette, 1096 OG 30 (November 15, 1989). The Fax Center number is (703) 872-9306. Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (571) 272-0547.



Rita Mitra, Ph.D.

October 29, 2004



**JON WEBER**  
**SUPERVISORY PATENT EXAMINER**